

WHAT IS CLAIMED IS:

1. A method of forming a flexible circuit board for ink jetting, comprising of:

providing an insulation tape;

forming conductive traces on the insulation tape; and

- 5 after the conductive traces are formed on the insulation tape, forming a photo-polymer layer that fills between the conductive traces, wherein the photo-polymer layer has holes formed therein so that parts of the conductive traces are not covered by the photo-polymer layer to form a plurality of uncovered contacts that are exposed by the holes.

- 10 2. The method according to claim 1, wherein the insulation tape comprises a polymer film.

3. The method according to claim 2, wherein a material of the polymer film comprises at least one of polyimide (PI), Teflon, polyamide, polymethyl methacrylate, polycarbonate, polyester, and polyamide polyethylene-terephthalate copolymer.

- 15 4. The method according to claim 2, wherein a material of the polymer film is polyimide (PI).

5. The method according to claim 1, wherein the forming the conductive traces comprises of:

forming an adhesive layer on the insulation tape;

adhering a conductive layer on the adhesive layer; and

defining the pattern of the conductive layer to form the conductive traces.

6. The method according to claim 5, wherein a material of the conductive layer is  
5 copper.

7. The method according to claim 5, wherein a material of the conductive layer is  
gold.

8. The method according to claim 5, wherein a thickness of the conductive layer  
is about 10 $\mu$ m to 50 $\mu$ m.

10 9. The method according to claim 1, wherein the photo-polymer layer is formed  
by coating.

10. The method according to claim 1, wherein the photo-polymer layer is formed  
by one of screen printing, spray coating, curtain coating and roller coating.

11. The method according to claim 1, wherein the photo-polymer layer is made of  
15 solder mask.

12. The method according to claim 1, wherein the photo-polymer layer is made of  
polyimide.

13. The method according to claim 1, wherein the forming a photo-polymer layer comprises coating, exposing, developing and post-curing.

14. The method according to claim 13, wherein the photo-polymer layer is made of solder mask and the solder mask comprises a main agent and a hardener with a ratio of about 7:3.

15. The method according claim 13, wherein the exposing is performed with an exposure energy of about 280~420mJ/cm<sup>2</sup>.

16. The method according to claim 13, wherein the post-curing is performed at a hot air convention oven at about 150 ° for about 50 min.

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